

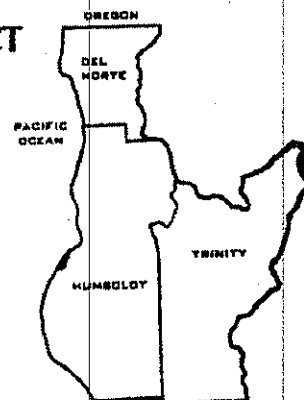
NORTH COAST UNIFIED AIR QUALITY MANAGEMENT DISTRICT

2300 Myrtle Avenue, Eureka, CA 95501

Phone (707) 443-3093 Fax (707) 443-3099

July 24, 1997

Gary Leonard, Manager
Ultrapower 3
PO Box 1158
Blue Lake, CA 95525



Dear Mr. Leonard:

As you know, your current permit limits for carbon monoxide(CO) and nitrogen oxides(NOx) are difficult to meet during the wet season of the year. Historically, periodic compliance checks with limits have determined that knowledge of emissions levels with respect to compliance is difficult if not entirely impossible to know without some type of emissions monitoring.

Attached is a memo to Wayne Morgan discussing the current limits and recommendations on changes to the current compliance procedure. The main points of the memo are the need for a continuous emissions monitoring system(CEMS) to determine compliance and secondly the need to review permit limits and change them accordingly once enough CEM data is available. We believe that the current limits based upon a 24 hour average are most likely not attainable for your plant especially during wet weather.

There are two methods by which we can approach this change:

1. The District can proceed with a rule revision at its next Board meeting of September 26. Attached is the proposal, or
2. If you are agreeable, we will incorporate this requirement into your Title 5 permit. We expect to be issuing a proposed Title 5 permit this year.

Obviously, if these permit changes can be done without rules changes, then that would be the preferred method. We are not sure when the final Federal CAM rule will be issued or what form it will take. But when it is issued, we will have to incorporate those requirements into the Title 5 permit. The CAM rule may never proceed, since it is still being revised, and the District wants to set a deadline for proceeding with the CEMS requirements.

I need to know your thoughts as to how you would like the District to proceed with this matter prior to August 6.

Sincerely,

A handwritten signature in cursive script that reads "Robert Clark".

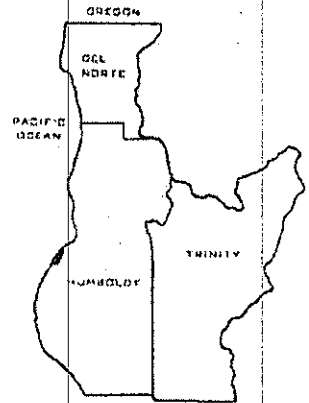
Robert Clark
District Engineer

clark/wood fired boiler permit limits 97

7/31 Leonard; just questions for owners memo

NORTH COAST UNIFIED AIR QUALITY MANAGEMENT DISTRICT

5630 SOUTH BROADWAY EUREKA, CALIFORNIA 95501
PHONE (707) 443-3093



MEMO

TO: Wood Fired Boiler Operators
FROM: Robert Clark, District Engineer
SUBJECT: REVIEW OF PERMIT CONDITIONS
DATE: September 24, 1991

The state Air Resources Board's Compliance Division audit of District operations in late 1988 produced some recommendations pertaining to the review of the adequacy of permit conditions. This memo is to inform you of the reasons why the District is modifying your current permit to operate conditions.

A. GENERAL

These boilers were constructed and began operation in the 1980's. The facilities consist of Sierra Pacific Industries, Hayfork; Ultrapower Systems, Blue Lake; Fairhaven Power Company, Fairhaven; and The Pacific Lumber Company, Scotia. In all cases these boilers have fallen under District PSD review and the determination of BACT for particulate matter, carbon monoxide, and nitrogen oxides was required. Review of the permit to operate conditions for these boilers indicates that the permits are poorly written to allow for determining compliance with District operational and emission limits. Attached in Table 1 is a comparison of the permit conditions for these boilers.

The steam load in all cases is averaged over an annual basis. The gaseous limits vary from a lb/MMBTU limit with and without a lb/hr limit, plus in two cases these limits are based upon an annual average. One boiler at Pacific Lumber has a CEM system which allows hourly tracking of the NO_x and CO emissions, yet the limit is based upon an annual average. Ultrapower has an annual average limit but no CEM for NO_x or CO.

B. LIMITATIONS:

1. Steam load needs to be a part of the condition of the permit to operate and limited to a calendar monthly average basis using the current annual capacity as the maximum monthly average. Since in all cases a 365 day period was used to determine emissions, if a shorter operating period is requested such as 350 days, the steam load could be adjusted by 365/350. The operating days if other than 365 would become a condition of the permit.

2. Gaseous emission limits for those boilers which are monitored with a CEM should be adjusted to a daily average and be in terms of lbs/MMBTU. Large carbon monoxide fluctuations have been noted on short term hourly values which exceed the permitted limit and this indicates the difficulty in achieving hourly values within the BACT levels which the District has permitted for these boilers. CEM system data has shown for a well tuned boiler

that these fluctuations are generally related to fuel/grate problems, and combustion air changes due to load changes. These types of problems are considered inherent in the operation of a wood fired boiler. The nitrogen oxides BACT level of 0.15 lbs/MMBTU has not shown the same fluctuation as carbon monoxide but is close to actual values obtained from CEM and manual tests. A daily average value for CEM systems is warranted. For those boilers which do not have CEM systems, a manual test using ARB method 100 should be required and the average of three one hour tests used.

By using the same BACT emission levels but changing the averaging times, the tons per year will remain the same which is how most of the PSD program is regulated.

3. Opacity permit limits, for those boilers which have CEM systems, are expressed as 20 percent opacity or greater for any period or periods aggregating more than three minutes in any one hour. The value of 20% was derived from the NSPS 6 minute average standard to which these boilers are also subject and made as a 3 minute per hour limit. Since the CEM systems derive a 6 minute average, the permit conditions should be changed to reflect this calculation for compliance checking. The District's Rule 410(a) which allows no more than 3 minutes per hour of opacity greater than 40% is also a limit that should be noted in the permit conditions. This is a more general opacity limit to which all sources are subject. Since the Sierra-Pacific plant was constructed prior to the date of the NSPS, the BACT for opacity should remain at the current 20% and minutes per hour.

C. CONCLUSIONS:

The three area that are being changed in your permit are as follows:

1. Steam load is being changed to a monthly average in keeping with EPA enforceability criteria.
2. Gaseous emissions limits are being changed to terms of lbs/MMBTU and averaged over 3 hours for nonCEM system and 24 hour averages for CEM systems.
3. Monitoring data for CEM systems are to be faxed to the District on a business daily basis.

TABLE 1

EMISSION AND OPERATIONAL LIMITS

FACILITY	LOAD	OPACITY	NOx	CO
Sierra Pacific, Hayfork	123,000 pph annual ave.	20%/3 min. per hour	0.15#/MMBTU (31.7 lb/hr)	1.0#/MMBTU (211 lb/hr)
Ultrapower, Blue Lake	118,000 pph annual ave.	20%/3 min. per hour	0.15#/MMBTU (30.4 lb/hr annual ave.)	1.0#/MMBTU (202.8 lb/hr annual ave.)
Fairhaven Power, Fairhaven	180,000 pph annual ave.	20%/3 min. per hour	0.15#/MMBTU	0.60#/MMBTU
Pacific Lumber, Scotia; 3 boilers	370,000 pph total annual ave.	20%/6 min ave. 40%/3 min. per hour	0.15#/MMBTU (90 lb/hr annual ave.)	0.60#/MMBTU (360 lb/hr annual ave.)